JAN.10.2006 9:26AM

BMS PATENT 203 677 6900

NO.076 P.3

10/767,645 / CT2662 DIV1

Amendments to the Claims

1. (Currently Amended) A compound of Formula (WHH)

wherein

R¹ is H, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆thioalkyl, cyano, halo,
C₃₋₇cycloalkyl, -C₁₋₆alkylene-C₃₋₇cycloalkyl, C₂₋₆alkenyl or C₃₋₆alkynyl;

R⁸ is O-C₁₋₄alkyl, -N(CH₃)(OCH₃) or other suitable leaving group;

X is C;

Y is C:

X¹ is N:

Y1 is N;

Y2 is CH2:

J is CH2 or a bond;

Z1 is CH2 or C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substitutents substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN.

2. (Currently Amended) A process for preparing a compound of Formula (WHH)

$$0 = \begin{bmatrix} R^{8} & Y^{2} - J \\ Y^{1} & Z^{1} \\ X & X^{1} \end{bmatrix}$$
 (WHIH)

wherein

R¹ is H, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆thioalkyl, cyano, halo,
C₃₋₇cycloalkyl, -C₁₋₆alkylene-C₃₋₇cycloalkyl, C₂₋₆alkenyl or C₃₋₆alkynyl;

R⁸ is O-C₁₋₄alkyl, -N(CH₃)(OCH₃) or other suitable leaving group;

X is C;

Y is C;

 X^1 is N;

Y¹ is N:

Y² is CH₂;

J is CH2 or a bond;

 Z^1 is CH₂ or C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substitutents substitutents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN;

comprising reacting a compound of Formula (UFF)

$$HZ$$
 Y^2 UFF

wherein

Z, Z¹, J and Y² are defined as for Formula (WHH);

with a compound of Formula (UFF')

wherein

R1, R8, X, Y, X1 and Y1 are defined as for Formula (WHH);

in the presence of a suitable base and polar aprotic solvent to yield a compound of Formula (VGG)

$$Z^{1}$$
 Z^{1} Z^{1

wherein

 R^1 , R^8 , X, Y, X^1 , Y^1 , Y^2 , Y, Z^1 and Z are defined as for Formula (WHH);

and reacting said compound of Formula (VGG) with a high-boiling point polar aprotic solvent and a suitable silver salt under suitably high temperature.

3. (Currently Amended) A compound of Formula (Z')

$$0 = \begin{cases} R^8 \\ Y^2 \\ Z^1 \end{cases}$$

$$Z = (Z')$$

wherein

R¹ is H, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆thioalkyl, cyano, halo,

C₃₋₇cycloalkyl, -C₁₋₆alkylene-C₃₋₇cycloalkyl, C₂₋₆alkenyl or C₃₋₆alkynyl;

R⁸ is O-C₁₋₄alkyl, -N(CH₃)(OCH₃) or other suitable leaving group;

X is C;

Y is C;

X¹ is N:

Y1 is N:

Y² is CH or CR⁵;

R⁵ is selected from the group consisting of -CN, -C₁₋₄alk(en)ylene-CN, halo, C₁₋₆alkyl, C₂₋₆alkenyl, C₃₋₆alkynyl, C₁₋₆haloalkyl, aryl, -C₁₋₄. alk(en)ylene-aryl, -C₁₋₄alk(en)ylene-heterocyclo, heterocyclo, -C₁₋₄alk(en)ylene- amino, -C₁₋₄alkylene-amino-C₁₋₄alkyl, aryl-amino, -amino-(C₁₋₆alk(en)yl)₁₋₂, -amino-aryl, -amino-heterocyclo, C₁₋₆alkoxy, -O-aryl and -O-heterocyclo;

 Z^1 is C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substitutents substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN.

4. (Currently Amended) A process for preparing a compound of Formula (Z')

$$0 = \begin{bmatrix} X^2 & X^2 & Z^1 & Z^1 & Z^2 & Z^2$$

wherein

R¹ is H, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆thioalkyl, cyano, halo, C₃₋₇cycloalkyl, -C₁₋₆alkylene-C₃₋₇cycloalkyl, C₂₋₆alkenyl or C₃₋₆alkynyl;

 R^8 is O-C₁₋₄alkyl, -N(CH₃)(OCH₃) or other-suitable leaving group;

X is C;

Y is C;

 X^1 is N:

Y1 is N;

Y² is CH or CR⁵;

R⁵ is selected from the group consisting of -CN, -C₁₋₄alk(en)ylene-CN, halo, C₁₋₆alkyl, C₂₋₆alkenyl, C₃₋₆alkynyl, C₁₋₆haloalkyl, aryl, -C₁₋₄alk(en)ylene-aryl, -C₁₋₄alk(en)ylene-heterocyclo, heterocyclo, -C₁₋₄alk(en)ylene- amino, -C₁₋₄alkylene-amino-C₁₋₄alkyl, arylamino, -amino-(C₁₋₆alk(en)yl)₁₋₂, -amino-aryl, -amino-heterocyclo, C₁₋₆alkoxy, -O-aryl and -O-heterocyclo;

 Z^1 is C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substitutents substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN;

comprising reacting a compound of Formula (X')

$$Y^2$$
 X^1

wherein

Z, Z^1 and Y^2 are defined as for Formula (Z^2);

with a compound of Formula (UFF')

wherein

 R^1 , R^8 , X, Y, X^1 and Y^1 are defined as for Formula (Z');

in the presence of a suitable base and polar aprotic solvent to yield a compound of Formula

wherein

$$R^1$$
, R^8 , X , Y , X^1 , Y^1 , Y^2 , Z^1 and Z are defined as for Formula (Z');

and reacting said compound of Formula (Y') with a high-boiling point polar aprotic solvent and a suitable silver salt under suitably high temperature.

5. (Currently Amended) A compound of Formula (AA')

$$0 = \begin{cases} R^8 \\ Y^2 \\ Z^1 \end{cases}$$
 (AA')

wherein

R¹ is H, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆thioalkyl, cyano, halo,

C₃₋₇cycloalkyl, -C₁₋₆alkylene-C₃₋₇cycloalkyl, C₂₋₆alkenyl or C₃₋₆alkynyl;

R⁸ is O-C₁₋₄alkyl, -N(CH₃)(OCH₃) er-other-suitable leaving group;

X is C;

Y is C;

X1 is N:

Y1 is N:

Y² is CH or CR⁵;

R⁵ is selected from the group consisting of -CN, -C₁₋₄alk(en)ylene-CN, halo, C₁₋₆alkyl, C₂₋₆alkenyl, C₃₋₆alkynyl, C₁₋₆haloalkyl, aryl, -C₁₋₄.

alk(en)ylene-aryl, -C₁₋₄alk(en)ylene-heterocyclo, heterocyclo, -C₁₋₄alk(en)ylene- amino, -C₁₋₄alkylene-amino-C₁₋₄alkyl, arylamino, -amino-(C₁₋₆alk(en)yl)₁₋₂, -amino-aryl, -amino-heterocyclo, C₁₋₆alkoxy, -O-aryl and -O-heterocyclo;

 Z^1 is CR^7 ;

wherein R⁷ is chloro or bromo; and

- Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN.
- 6. (Currently Amended) A process for preparing a compound of Formula (AA')

$$0 = \begin{bmatrix} R^8 & Y^2 & Z^1 \\ Y & X & X^1 \end{bmatrix}$$
 (AA')

wherein

 R^1 is H, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} thioalkyl, cyano, halo, C_{3-7} cycloalkyl, $-C_{1-6}$ alkylene- C_{3-7} cycloalkyl, C_{2-6} alkenyl or C_{3-6} alkynyl;

R8 is O-C1-4alkyl, -N(CH3)(OCH3) or other suitable leaving group;

X is C;

Y is C:

X1 is N:

Y¹ is N:

Y² is CH or CR⁵;

R⁵ is selected from the group consisting of -CN, -C₁₋₄alk(en)ylene-CN, halo, C₁₋₆alkyl, C₂₋₆alkenyl, C₃₋₆alkynyl, C₁₋₆haloalkyl, aryl, -C₁₋₄alk(en)ylene-aryl, -C₁₋₄alk(en)ylene-heterocyclo, heterocyclo,

-C₁₋₄alk(en)ylene- amino, -C₁₋₄alkylene-amino-C₁₋₄alkyl, arylamino, -amino-(C₁₋₆alk(en)yl)₁₋₂, -amino-aryl, -amino-heterocyclo, C₁₋₆alkoxy, -O-aryl and -O-heterocyclo;

 Z^1 is CR^7 ;

wherein R⁷ is chloro or bromo; and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substitutents substituents selected from the group consisting of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₆thioalkyl, C₁₋₄haloalkyl, halogen, N(C₁-C₄alkyl)₂ and CN;

comprising reacting a compound of Formula (Z')

wherein

$$R^1$$
, R^8 , X , Y , X^1 , Y^2 , and Z are defined as for Formula (AA'); and Z^1 is $C(O)$;

with phosphoryl trichloride or phosphoryl tribromide, neat or with a suitable solvent and without a base or with a suitable base.